

The Commonwealth of Massachusetts

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ANNUAL REPORT

OF THE

BOARD OF REGISTRATION IN OPTOMETRY

FOR THE

YEAR ENDING NOVEMBER 30, 1936

DIVISION OF REGISTRATION  
DEPARTMENT OF CIVIL SERVICE AND REGISTRATION



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# The Commonwealth of Massachusetts

## DEPARTMENT OF CIVIL SERVICE AND REGISTRATION BOARD OF REGISTRATION IN OPTOMETRY

State House

To HONORABLE JAMES J. SUGHRUE, *Director of Registration*:

Sir: The Board of Registration in Optometry has the honor to submit to you its twenty-fifth annual report as prescribed by section 67 of chapter 112 of the General Laws.

The Board during its fiscal year ending November 30, 1936 met on fourteen days. These meetings included hearings and bi-annual examinations.

The written examinations held June 22 to 24 inclusive, and November 16 to 18, were held in the Assembly rooms of the Massachusetts Society of Optometrists, 92 Tremont St., Boston, Mass.

The clinical demonstration of ability in office procedure, instrumentation, analysis, diagnosis, prognosis, prescription writing, and the determination if orthoptic procedure be necessary, the correctness of glasses prescribed as to prescription conformity and the proper adjustment of glasses to a patient were held in the clinic rooms of the above mentioned Society and at the State House.

The written examinations were as follows:

### ANATOMY

1. Name the bones which form the floor of the orbit.
2. Discuss the blood supply of the sclera naming all arteries and veins.
3. Describe in detail the lachrymal apparatus, using sketches and labeling the various parts.
4. Explain the anatomy involved in Roenne's nasal step.

### PHYSIOLOGY

1. Discuss the function of the autonomic nervous system.
2. Define neuron, synapse, dendrite.
3. Trace step by step and in order, the nerve pathways of the accommodation-convergence pupillary reaction.
4. To what extent do the cornea and the crystalline lens absorb ultra-violet radiation?

### PATHOLOGY

1. When a lesion is located in the cortex what are the principal symptoms presented?
2. Give eight causes of iritis.
3. What eye diseases may tuberculosis cause?
4. Give the clinical symptoms of uveitis.

Answer ten questions, three in each group. The tenth may be chosen from any group.

June, 1936.

JOHN J. O'NEIL, Opt. D.

### PRACTICAL OPTOMETRY

1. Describe the taking of the pupillary distance: (a) distance; (b) near. For what purpose is this measurement obtained?
2. Describe the various methods of determining pupillary reactions. If findings are abnormal, what do they indicate? Why?
3. How do you determine the relationship of a patient's light threshold to the expected?

4. How can a patient's sensitiveness to light be determined? Name three different kinds of filter glass and tell for what specific purpose they are used.

5. A patient has (a) convergence insufficiency; (b) convergence excess. What findings are necessary to learn cause? Explain (a) Technique used to obtain necessary findings; (b) Analysis of findings; (c) Procedure indicated to correct existing condition.

6. A patient's corneal curvature findings are: O.D. 42. D., 180, 43.50 D., 90. Static and dynamic retinoscopy show 0.25 D cyl. against the rule and subjectively 0.25 D against the rule equalizes lines in astigmatic chart. Explain what you would prescribe, state reason why and describe manner in which you would handle this case.

7. A nonpresbyopic patient's subjective accommodation findings are abnormal. Explain method of caring for such cases.

8. What is the expected amplitude of accommodation at age 10; 15; 20; 25; 35; 45; 50 and 60.

9. Describe how one may determine the zone of comfortable ocular functioning.

10. State the findings you would expect to find in a complete visual function investigation that would indicate the contra use of lenses as a needed aid.

June, 1936.

WALTER IRVING BROWN, Opt. D.

#### THEORETIC OPTICS

1. We have a crown glass lens index 1.53 plano convex power 12.D. It is desired to make this an achromatic lens, what lens will be used?

2. A transparent body  $1\frac{1}{2}$ " thick of unknown refractive index is available for the construction of a lens, determine its mean refractive index by the approximate prism method.

3. A D.C.X. lens of index 1.50 and .75 cm thick has a radius of 4.85 cm, what is its equivalent focal length?

4. We wish to prescribe a toric lens + 1.50Sph  $\ominus$  + .75 Cyl axis 45 and include also a prism 4D base in and 1.5 D base up. Construct the lens using glass index 1.53.

5. A test card  $24\frac{1}{10}$ " is on a wall. What is the size of the smallest mirror placed 12ft. away that will reflect the entire card?

#### PHYSIOLOGIC OPTICS

1. Explain Fechner's Law.

2. Discuss stereoscopic fusion obtained without a stereoscope. Draw diagram.

3. A Hyperope of 2D., a myope of 2D. uncorrected and an emmetrope see the same object at 1 metre distance. What is the comparative size of the retinal image in each case?

4. Discuss the optical system of the eye.

5. Discuss physiologic binocular diplopia.

June, 1936.

JOHN E. CORBETT, Opt. D.

#### THEORETIC OPTOMETRY

1. What is the Keratometer? Name the three essential parts. What are the special advantages in its use?

2. Why is it desirable to know the far and near point of vision? What does the interval between measure?

3. State the principle involved in the Maddox Rod Test?

4. Name and describe eight subdivision of Heterophoria.

5. What significance may be attached to an improvement in Vision that is obtained by the pinhole disk? Explain the Optic phenomenon.

6. What does the trial case contain?

7. What is meant by Astigmatism? What is meant by with the Rule or against the Rule?

8. Why do findings sometimes differ in measuring astigmatism by the astigmatic dial, by the stenopaic slip and by the retinoscope?

9. Under what conditions is the static method considered the best?

Under what conditions is the dynamic method considered best?

10. Why do some people with an astigmatic error and using their naked eyes see the horizontal lines on the chart distinctly, but with fogging lines see the vertical lenses plainest, while others see the same lines plainest with or without the fog?

June, 1936.

CHARLES J. COLLINS, Opt. D.

### PRACTICAL OPTICS

1. (A) What is the difference between chromatic aberration and spherical aberration?

(B) How is each of these practically eliminated from modern ophthalmic bifocal lenses?

2. Patient requires for distance wear:

O.D. — 3.50 S  $\ominus$  — 3.00 Cyl. ax. 45  $\ominus$  1  $\Delta$  Base-in.

O.S. — 4.00 S  $\ominus$  — 2.50 Cyl. ax. 135  $\ominus$  1  $\Delta$  Base-in.

Give the direction and amount of decentration necessary in order to get the required prismatic power in finishing each of these lenses from regular uncut toric lenses.

Explain your method of calculating the amount of decentration.

3. Above patient requires a reading "add" of 2.00 D. to above Rx. If his near lenses are to be made 38mm round, what is minimum size uncut lens from which each can be made?

4. Using spherical neutralization lens, one lens only at a time, name lenses you would use to neutralize each of the following:

(A) + 0.75 S  $\ominus$  + 0.62 Cyl. ax. 90

(B) — 0.37 S  $\ominus$  — 0.87 Cyl. ax. 180

(C) + 1.75 S  $\ominus$  — 2.75 Cyl. ax. 90

(D) — 1.25 Cyl. ax. 45  $\ominus$  + 1.00 Cyl. ax. 135

5. What type bifocals would you ordinarily recommend to a landscape artist for his work? Why?

6. Which type of mounting is usually more practical optically:

Fits-U type nose glasses, folding oxfords, skull-bow spectacle frames, or riding-bow spectacles? Why?

7. Patient complains of asthenopia with his new distance glasses and has noticed that objects as seen by his left eye seem a trifle larger than when seen only by his right eye. His lenses are both + 5.00 S. Meniscus and are mounted in a gold-filled spectacle frame. How could you attempt to alleviate this condition by adjustment only? Why?

8. Patient requires bifocals made up in following Rx:

O.D. — 4.00 S  $\ominus$  — 2.00 Cyl. ax. 180.

O.S. .... + 4.00 Cyl. ax. 180.

add for near + 2.00 S. O.U.

He has had much grief with an almost identical Rx made up in regular toric kryptok form. What is probably causing his trouble and how would you make his new bifocals to overcome or greatly lessen his discomfort?

9. If above patient were a sub-presbyope needing no "add" for near, but otherwise the same type of patient, would he probably be visually uncomfortable if his Rx were made up in an ordinary pair of "corrected curve" ophthalmic lenses? If so, how would you attempt to ensure his visual comfort and efficiency?
10. A patient has high forehead, ordinary P.D., narrow face, with small chin. What type of spectacle frame would probably best improve or enhance his appearance as well as give him a practical mounting for a pair of "strong" cylindrical lenses? Why?

June, 1936.

JOHN J. O'SHEA, Opt. D.

In June, 39 applicants were examined; and in November, 35 applicants were examined. There were 24 successful candidates registered as practitioners of optometry and four reciprocity certifies issued during the year.

Thirteen certificates of registration were revoked for non-payment of annual registration fee. Eighteen certificates were cancelled due to the decease of the practitioners.

His Excellency, Governor James M. Curley, reappointed Dr. Charles J. Collins of Boston on September 16, 1936 and he was qualified on September 25, 1936.

At the annual meeting of the Board, Dr. John E. Corbett of Boston was elected Chairman, and Dr. Walter I. Brown, of New Bedford was elected Secretary for the ensuing year.

#### FINANCIAL REPORT

##### *Receipts*

Fees received from various sources for year ending November 30, 1936 \$2,981.15

##### *Expenditures*

Members' service .....	\$1,900.00
Travel expenses .....	769.52
Office expenses .....	649.16
Total expenses .....	<u>\$3,318.68</u>

Respectfully submitted,

JOHN E. CORBETT, Opt. D., *Chairman*  
 WALTER I. BROWN, Opt. D., *Secretary*  
 CHARLES J. COLLINS, Opt. D.  
 JOHN J. O'NEIL, Opt. D.  
 JOHN B. O'SHEA, Opt. D.